

REMARKS

Claims 1 - 8 are pending in this application. Claim 1 is independent.

Request for Withdrawal of Finality of the Office Action

The Office Action presents for the first time a rejection of claim 2 under 35 U.S.C. 112, second paragraph. This rejection of claim 2 was not necessitated by amendment. Therefore, at least because of the new grounds of rejection of claim 2, the finality of the Office Action is improper. Accordingly, Applicant respectfully requests that the finality of the Office Action be withdrawn, and this response be treated as a response under 37 C.F.R. 1.111.

Objection to the Specification

The specification had been objected to due to minor informalities. Applicant has amended the specification as recommended in the Office Action. However, with respect to a request for a description for reference 246 in Figure 13, reference label 246 is described in the specification, with respect to Fig. 10 on page 2, line 18, as "sheet metal 246." Further, in replacement Figure 4, "LNA" refers to the area divided by the solid line and "BRANCH" has been deleted. Additional description provided in the specification finds support in the drawings as originally filed.

Drawing Objections

Figures 4, 5 and 8 have been objected to as requiring reference labels. Applicant disagrees that numerical labels should be provided in Figures 4 and 5. The symbols in those drawings stand for regions, not the components alleged in the Office Action. Components located in the regions have associated reference labels. With respect to Fig. 8, Applicant disagrees that reference labels need to be provided in that figure, as the requested labels are illustrated in Fig. 7.

Claim Objections

Claims 2, 3 and 8 have been objected to. Applicant has amended those claims as requested.

Claim Rejection – 35 USC 112

Claim 2 has been rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The claim has been amended to clarify that a power-supply potential is supplied from a power supply circuit on the first circuit board. Accordingly, Applicant requests that the rejection be withdrawn.

Claim Rejection – 35 USC 103; disclosed prior art, Kanda

Claims 1 and 2 have been rejected to over prior art disclosed in the present application and Kanda et al. (U.S. Patent 5,630,226). Applicant respectfully traverses this rejection.

As stated in the present specification, an object of the present invention is to provide a satellite broadcast receiver that can reduce the level of a spurious signal generated when two local oscillation circuits are simultaneously operated (Specification, page 3, "Summary of the Invention"). In order to solve this problem, the present invention shields the two oscillation circuits from each other sufficiently to eliminate or reduce the spurious signal generated by simultaneously operation of the oscillators. In particular, the present invention includes a chassis portion formed to a thickness of approximately 7mm to separate the oscillation circuits.

The prior art disclosed in the present application includes a sheet metal 246 to separate the oscillators 212 and 218. Applicant in the present invention determined that such a configuration was insufficient to reduce the spurious signal generated by the oscillation circuits (Specification, page 2, lines 18-26).

Kanda teaches dividing the printed circuit board into two blocks of a low-noise amplifier section including a radio signal selection means and a frequency converter section including a local oscillator circuit, and providing each block of the circuit board on each side surfaces of a

partition. Such a configuration had an objective of reducing leakage of local oscillation signals to input terminals (Kanda at column 4, lines 31-35). Kanda does not appear to teach reduction of a spurious signal generated by simultaneous operation of two oscillator circuits, for example, because only one of the two circuit boards contains a local oscillator.

Applicant submits that Kanda would not teach one of ordinary skill in the art to modify the prior art disclosed in the present application in order to produce the configuration of the present claimed invention. The Office Action presents an argument that, "Kanda does indeed suggest that the grounded chassis therein which partitions the two circuit boards provides for reduction of any spurious leakage from local oscillator circuits as described at col. 4, ls 31-37." The Office Action then concludes that it would have been obvious to have applied such a concept to the admitted prior art circuit ... to thereby impart the benefits of this spurious or leakage reduction. Applicant submits that Kanda does not teach partitioning circuit boards to separate signals from two oscillator circuits and thus does not address reduction of spurious signals.

It is a well established principle that one may add to the sum of useful knowledge by uncovering the nonobvious source of a problem and in devising a solution which, though involving a combination of old elements obvious after the source of the problem is isolated, has never before occurred to those skilled in the art. Eibel Process Corp. v. Minnesota & Ontario Paper Co., 261 U.S. 45 (1923);

Kanda appears to be concerned with reduction in the size of the case body 31. On the other hand, the present invention solves a problem of a spurious signal through a structure for two oscillation circuits. Thus, Applicant submits that one of ordinary skill would not look to Kanda for solving the problem addressed by the present invention, and thus would not have been motivated to combine the prior art in the present application and Kanda to obtain the claimed invention.

Therefore, Applicant submits that it would not have been obvious to one of ordinary skill in the art to combine the teachings of Kanda with the prior art disclosed in the present invention.

Further with respect to claim 2, Applicant submits that Kanda and Figures 11 and 13 of the present application, either alone or in combination, fails to teach or suggest the claimed, "said second printed circuit board is provided with a third hole in a peripheral region, along a furthest one of sides of said second board with respect to said second local oscillation circuit." In the present invention, contact pin 62 is arranged in a peripheral region 74 with a longer distance from local oscillation circuit 18 including dielectric resonator 72 (see Figure 6), compared to the conventional device of Figure 11. In the present invention, this structure leads to suppression of radio wave in local oscillation leaking to contact pins (Specification, page 7, lines 26-30).

Accordingly, Applicant respectfully requests that the rejection be withdrawn.

Claim Rejection; disclosed prior art, Kanda, Saitoh

Claims 3 and 8 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art disclosed in the present application, Kanda, and further in view of Saitoh et al. (U.S. Patent 4,353,132). Applicant respectfully traverses this rejection.

With respect to dependent claims 3 and 8, at least for the reasons set forth above for claim 1, Applicant submits that claims 3 and 8 are not obvious as well. In addition, with respect to claim 8, Applicant submits that Kanda and Saitoh, either alone or in combination, fail to teach or suggest the claimed, “shaft portion protrudes from the second board to an extent that a spurious signal due to the two local oscillation circuits is precluded.” [emphasis added]

The Office Action states that, “the shaft portion extends beyond the circuit board (much in the same manner as applicant’s pin) and as such would have inherently function in the same manner as applicant’s contact pin in suppressing undesired spurious signals.” Applicant believes that this statement reflects a misunderstanding of the present invention. In particular, it appears that the claim has been interpreted such that a longer shaft portion that extends beyond the circuit board is more beneficial in suppressing undesired spurious signals. To the contrary, the present claimed invention is specifically limited to protrusion to an extent that a spurious signal is precluded, i.e., a short

protrusion. Neither Kanda or Saitoh address the problem of a spurious signal from simultaneous operation of two oscillator circuits. Furthermore, Saito does not disclose a specific length of the conductor rods 23 and 24. Thus, Applicant submits that insufficient evidence of inherency is provided by the Office Action.

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the alleged inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Once a reference teaching a product appearing to be substantially identical is made the basis of a rejection, and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference. "The PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on 'inherency' under 35 U.S.C. 102, on 'prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same." *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980).

Accordingly, Applicant submits that the rejection fails to establish *prima facie* obviousness and respectfully requests that the rejection be withdrawn.

Claim Rejection – 35 USC 103; disclosed prior art, Kanda, Nakamura

Claims 4 and 5 have been rejected under 35 U.S.C. 103(a) as being unpatentable over prior art disclosed in the present application, Kanda, and further in view of Nakamura (U.S. Patent 5,584,064). Applicant respectfully requests that the rejection be withdrawn.

Applicant submits that Nakamura also does not address the problem of a spurious signal and does not make up for the deficiencies of the prior art disclosed in the present application and Kanda. Thus, Applicant submits that the rejection fails to establish *prima facie* obviousness for claims 4 and 5, as well.

Claim Rejection – 35 USC 103; disclosed prior art, Kanda, Nakamura

Claims 6 and 7 have been rejected under 35 U.S.C. 103(a) as being unpatentable over prior art disclosed in the present application, Kanda, and further in view of Nakamura (U.S. Patent 6,472,958, hereinafter Nakamura 2). Applicant respectfully requests that the rejection be withdrawn.

Applicant submits that Nakamura 2 also does not address the problem of a spurious signal and does not make up for the deficiencies of the prior art disclosed in the present application and Kanda. Thus, Applicant submits that the rejection fails to establish *prima facie* obviousness for claims 6 and 7, as well.

New Claim

Claim 9 further recites a limitation for the distance between surfaces of the circuit boards. Applicant submits that none of the references of record teach or suggest this claimed limitation.

CONCLUSION

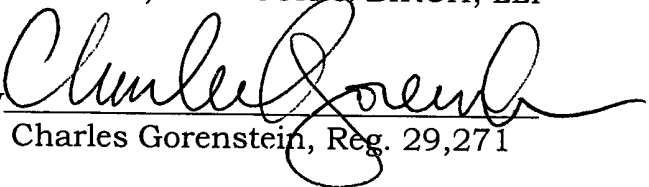
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert Downs at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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